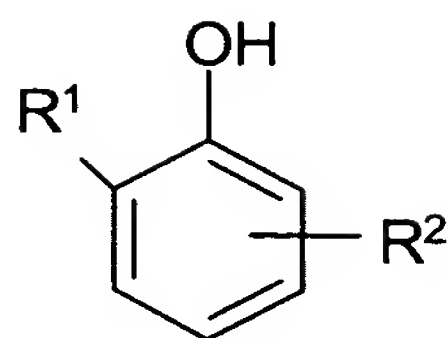


What is claimed is:

1. A process for preparing 2-alkylpolyisobutenylphenols and their Mannich adducts,
by
 - a) contacting at least one 2-alkylhydroxyaromatic compound with a catalytically active amount of a BF_3 source which is capable of complex formation with the 2-alkylhydroxy compound, and alkylating with substantially monoethylenically unsaturated and substantially homopolymeric polyisobutenes,
 - b) if appropriate, subjecting the 2-alkylpolyisobutenylphenols obtained in step a) to an aminoalkylation.
2. The process according to claim 1, wherein the BF_3 source used in step a) is selected from
 - i) gaseous BF_3 ,
 - ii) BF_3 complexes with at least one of the 2-alkylhydroxyaromatic compounds used in step a),
 - iii) BF_3 complexes with hydroxyaromatic compounds which are substantially not alkylated under the reaction conditions in step a), and
 - iv) mixtures of BF_3 with aliphatic alcohols which comprise less than 2 mol of alcohol per mole of BF_3 .
3. The process according to claim 2, wherein the hydroxyaromatic compounds of the BF_3 complexes iii) used as the BF_3 source are selected from 2,4,6-trialkylphenols and 4-halophenols.
4. The process according to claim 2, wherein the molar ratio of alcohol to BF_3 in the mixture of BF_3 with aliphatic alcohols iv) which is used as the BF_3 source is at most 1.9:1, preferably at most 1.5:1, in particular at most 1.1:1.
5. The process according to any of the preceding claims, wherein the 2-alkylhydroxyaromatic compound is contacted with the BF_3 source and alkylated with the polyisobutenes at a temperature of at most 40°C , preferably of at most 30°C .
6. The process according to any of the preceding claims, wherein the 2-alkylhydroxyaromatic compound is contacted with the BF_3 source at a temperature of at most 20°C , preferably of at most 10°C .
7. The process according to any of the preceding claims, wherein the 2-alkylhydroxyaromatic compound used for the alkylation in step a) is selected from compounds of the general formula I



(I)

where

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R¹ is C₁-C₂₀-alkyl and

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R² is hydrogen, C₁-C₂₀-alkyl, hydroxyl or C₂-C₄₀₀₀-alkyl which is interrupted by at least one moiety which is selected from O, S and NR³ where R³ is hydrogen, alkyl, cycloalkyl or aryl.

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8. The process according to claim 7, wherein R¹ and/or R² are each a C₁-C₂₀-alkyl radical which has at least one tertiary or quaternary carbon atom.
9. The process according to either of claims 7 and 8, wherein R¹ is a C₁-C₂₀-alkyl radical and R² is hydrogen, and the 2-alkylpolyisobutenylphenols obtained in step a) are subjected to an aminoalkylation in step b).
10. The process according to either of claims 7 and 8, wherein R² is a radical other than hydrogen which is bonded to the benzene ring in the 6-position.
11. A composition comprising at least one 2-alkylpolyisobutenylphenol and/or at least one Mannich adduct thereof, obtainable by a process according to any of claims 1 to 10.
12. The composition according to claim 11, which is obtainable by alkylating at least one 2-alkylhydroxyaromatic compound of the general formula I where R¹ and/or R² are each a C₁-C₂₀-alkyl radical which has at least one tertiary or quaternary carbon atom.
13. The composition according to claim 12, which has at least 90% by weight of at least one 2-alkylpolyisobutenylphenol and/or at least one Mannich adduct thereof.
14. The composition according to any of claims 11 to 13 in the form of a fuel composition comprising a majority of a liquid hydrocarbon fuel.
15. The composition according to any of claims 11 to 13 in the form of a lubricant composition comprising a majority of a liquid, semisolid or solid lubricant.

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16. A turbine fuel composition comprising a turbine fuel (jet fuel) and a composition as defined in any of claims 11 to 13.
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- 5 17. An additive concentrate for turbine fuels, comprising
- at least one composition as defined in any of claims 11 to 13,
 - if appropriate at least one diluent,
 - if appropriate at least one additive.
- 10 18. The use of a composition as defined in any of claims 11 to 13 for stabilizing nonliving organic material against the action of light, oxygen, and heat.
- 15 19. The use of a 2-alkylpolyisobutenylphenol-containing composition as defined in any of claims 11 to 13 as a fuel additive and for preparing fuel detergents.
- 20 20. The use of a composition comprising a Mannich adduct of a 2-alkylpolyisobutenylphenol and as defined in any of claims 11 to 13 as a detergent additive in fuel and lubricant compositions.
- 20 21. The use of at least one 2-alkylpolyisobutenylphenol and/or of at least one Mannich adduct thereof, obtainable by a process according to any of claims 1 to 10, for improving the thermal stability of turbine fuels.
- 25 22. The use of at least one 2-alkylpolyisobutenylphenol and/or of at least one Mannich adduct thereof, obtainable by a process according to any of claims 1 to 10, as an additive for turbine fuels for reducing deposits in the fuel system and/or combustion system of a turbine.